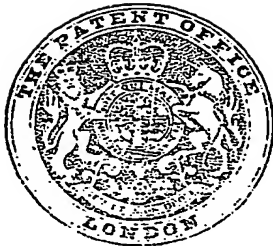


PATENT SPECIFICATION

878,252

DRAWINGS ATTACHED.



*Date of Application and filing Complete Specification :
May 28, 1959. No. 18276 j59.*

Application made in Australia on Feb. 6, 1959.

Complete Specification Published : Sept. 27, 1961.

Index at Acceptance :—Class 94(1), C(11:19C:24B4:25E).

International Classification:—B65b.

SPECIFICATION NO. 878,252

By a direction given under Section 17(1) of the Patents Act 1949 this application proceeded in the name of Johnson & Johnson, a Corporation organised and existing under the laws of the State of New Jersey, United States of America, of 501, George Street, New Brunswick, New Jersey, United States of America.

THE PATENT OFFICE,
15th January, 1962

DS 60119/1(10)/R.153 200 1/62 PL

- 10 statement.—
This invention relates to an improved
package for unwrapped or individually
wrapped, readily detachable, discrete articles
especially elongated flat articles and par-
15 ticularly to strip form adhesive bandages or
dressings; to a method of packaging such
articles and to a "final pack" containing said
articles in a convenient form; said final pack
being adapted to be readily folded, opened
20 and reclosed in a number of different ways
so as to acceptably fit purse or pocket.

- In the known art, discrete, readily detach-
able articles, either individually wrapped or
unwrapped, are usually packed for sale in a
number of known ways, such as by uniform
25 stacking in folding boxboard cartons and
set-up cardboard boxes, in metal boxes made
from tinfoil or aluminium and also random
or loose packing in cardboard boxes, metal
boxes and opaque or transparent pouches or
30 flatbags or "satchets".

- One of the difficulties of such methods
of packing relates to the retention of the
original size of the container from first use
to last. That is, as the contents of the pack-
35 age progressively diminish through use, the
package size remains constant and does not
diminish correspondingly.

- The present invention overcomes this
difficulty by providing a package capable of
40 being progressively folded or of having a
section cut or torn off, as each article is re-
moved.

sterilisation, such as adhesive bandages or
dressings, these can be attached in place onto
a continuous web, which web or parts thereof
can be rolled into large rolls and then
sterilised by the known gaseous process of 55
sterilisation.

At present these types of dressings and
bandages are sterilised by placing them in-
dividually on large flat trays in thin layers
and this is time consuming and expensive. 60
As each package of the present invention is
formed from a length of flat flexible material,
this material in itself serves as a supporting
tray for sterilisation.

According to the present invention a pack- 65
age for individual articles comprises a
plurality of serially connected substantially
flat panels defined by transverse fold lines
along which the panels are foldable one upon
the other to form a multi-ply structure with 70
an end panel and an intermediate panel con-
stituting the outer plies, each panel having
side margins folded inwardly to cover parti-
ally individual articles extending crosswise
of the panels releasably adhered to the inner 75
face thereof, the aforementioned end panel
being provided with a tongue and the inter-
mediate panel with a slit for receiving the
tongue when the package is folded to prevent
the package from unfolding. 80

According to the invention also, a method
in making a package of individual articles
comprises forming a plurality of transverse
spaced apart lines and two longitudinally

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COMPLETE SPECIFICATION.

Improvements relating to Packages for Discrete Articles.

I, LESLIE JOSIAH BUCK, an Australian Citizen, of 11 Minmai Road, Villawood, in the State of New South Wales, Commonwealth of Australia, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to an improved package for unwrapped or individually wrapped, readily detachable, discrete articles especially elongated flat articles and particularly to strip form adhesive bandages or dressings; to a method of packaging such articles and to a "final pack" containing said articles in a convenient form; said final pack being adapted to be readily folded, opened and reclosed in a number of different ways so as to acceptably fit purse or pocket.

In the known art, discrete, readily detachable articles, either individually wrapped or unwrapped, are usually packed for sale in a number of known ways, such as by uniform stacking in folding boxboard cartons and set-up cardboard boxes, in metal boxes made from tinplate or aluminium and also random or loose packing in cardboard boxes, metal boxes and opaque or transparent pouches or flatbags or "satchets".

One of the difficulties of such methods of packing relates to the retention of the original size of the container from first use to last. That is, as the contents of the package progressively diminish through use, the package size remains constant and does not diminish correspondingly.

The present invention overcomes this difficulty by providing a package capable of being progressively folded or of having a section cut or torn off, as each article is removed.

Another advantage of the present package lies in the fact that it lends itself admirably to automatic packing from the machine which produces and (if desired) wraps the articles.

Still another advantage of the present invention lies in the fact that when the articles to be packaged are of the type requiring sterilisation, such as adhesive bandages or dressings, these can be attached in place onto a continuous web, which web or parts thereof can be rolled into large rolls and then sterilised by the known gaseous process of sterilisation.

At present these types of dressings and bandages are sterilised by placing them individually on large flat trays in thin layers and this is time consuming and expensive. As each package of the present invention is formed from a length of flat flexible material, this material in itself serves as a supporting tray for sterilisation.

According to the present invention a package for individual articles comprises a plurality of serially connected substantially flat panels defined by transverse fold lines along which the panels are foldable one upon the other to form a multi-ply structure with an end panel and an intermediate panel constituting the outer plies, each panel having side margins folded inwardly to cover partially individual articles extending crosswise of the panels releasably adhered to the inner face thereof, the aforementioned end panel being provided with a tongue and the intermediate panel with a slit for receiving the tongue when the package is folded to prevent the package from unfolding.

According to the invention also, a method in making a package of individual articles comprises forming a plurality of transverse spaced apart lines and two longitudinally

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extending marginal fold lines in a substantially rectangular sheet to define a plurality of portions of the sheet bounded by foldable margins, two portions being provided respectively with a tongue and a slit, adhering individual articles to the portions in spaced apart relationship longitudinally of the sheet, folding in the margins of the portions so as to overlie the surfaces thereof to which the articles are adhered, successively folding each portion over the next adjacent from one end of the sheet to enclose the articles within the multi-ply structure formed by the infolded portions and inserting the tongue provided on one of said portions at one end within the slit provided in another of said portions to prevent the package unfolding.

The containment and placement of the discrete articles is achieved by the application of adhesive material, which may comprise any desired widths and numbers of glue lines, or if the articles or strip are made of material, such as plastics which lends itself to heat sealing, by heat-seal attachment points.

The material of which the package is made may be any suitable flexible material such as paper, cloth or plastic, which is adapted to be filled by attachment to a continuous automatic machine, manufacturing the articles with which it is desired to fill the package.

The package material is conveniently in the form of a roll perforated or die-cut and pre-creased, at fixed intervals to provide separable sheets for individual packages which are later separated from such prepared roll.

The tongue and slot are so placed on the package as to allow the maximum number of articles to be detached from the package before the tongue and slot fastening itself is torn off. To achieve this the tongue and slot are respectively positioned one on each of two outer folds of the package, with further folds beyond the tongue or the slot or both, thus enabling the articles mounted on the remaining folds (which lie between the two outer folds when the package is closed) to be torn off before the fastening. It is preferred to pre-print the prepared roll with the usual advertising and instructional matter before the separable sheets are removed and the articles are attached to them. Holes cut out by dies may be provided to enable the "final packs" to be hung up, which is particularly useful for rack jobbing merchandising or wire rack dispensing.

When using the packaging method of the present invention, the prepared roll is mounted and driven in synchronisation with a machine which delivers the articles to be packaged in such a way that the roll is passed over the stacker head on the delivery end of said machine and groups of spaced apart individually wrapped or unwrapped

articles are progressively applied to the roll at regularly spaced intervals corresponding to the intervals in between the die-cuts and perforations so that a group is applied to each individual package blank.

Attachment of the articles is achieved either by means of longitudinally extending glue lines which are applied to the moving roll before it comes into contact with the articles to be mounted thereon, or, where the materials used are suitable types of plastics, the articles may be heat sealed to the roll.

Prior to the application of the glue lines or heat seal treatment, two continuous creases are provided along the roll at a chosen distance in from the edges, to allow of later folding-in of the margins so defined in order to present a neat appearance to the finished pack, and a consequent increase in intrinsic rigidity.

In order to allow of a variety of finished folded effects, the spacing between adjacent articles is such as will allow of a number of thicknesses of articles to be folded in at will. When adhesive dressings are to be packed the preferred number of thicknesses folded together is four. This gives a very convenient pocket size final pack.

When the articles to be packaged are adhesive bandages, surgical dressings or other articles requiring to be sterilised, it is preferred that the package on which they are to be mounted or glued is a continuous web of fairly stiff paper. This web acts as a support for the articles during sterilisation. After the bandage or dressings are attached to the web it can be rolled into large rolls which can then easily and economically be bulk sterilised *in situ* by the well-known gaseous sterilisation process.

In order that the invention may be clearly understood reference is now made to the accompanying drawings illustrating one preferred embodiment by way of example and in which:—

Figure 1 shows in plan a package of surgical dressings in a flat unfolded condition;

Figure 2 shows a perspective view of the same package partially folded; and

Figure 3 shows a similar view of the package fully closed.

The package comprises a blank 1 of cardboard or other suitable sheet material to which are stuck by glue or any other preferred adhesive a plurality of spaced-apart dressings 2. Such a blank can, as has already been described, be formed from a roll of material suitably pierced to enable individual blanks to be separated therefrom.

The blank is divided into three portions 3, 4, 5 by transverse fold lines 6, 7. The portion 3 carries a tongue extension 8 for insertion in a slot 9 in the adjoining portion 4 as will presently be described. A fold line

10 is formed between the portion 3 and the tongue 8. Each portion is bounded on its side edges by fold lines 11, 12 defining inwardly foldable margins 13, 14.

5 The package is closed by first turning the margin 13, 14 inwardly onto the adjacent portion 3, 4, 5 and overlying the dressings 2. Portion 5 is then folded over portion 4 about the fold line 7 and the two portions 5 and 4 are together folded over the portion 3 about the fold line 6. Figure 2 shows this step partially completed. Finally the tongue 8 is folded over the outer surface of the portion 4 and tucked into the slot 9 as shown in Figure 3.

15 It will be clear that the package so formed is convenient to handle or store and can be easily opened out for the removal of dressings. As each dressing is removed the package can be gradually reduced in size by tearing away the vacant areas of the sheet. It will of course be understood that eventually, in this way, the portion 4 containing the slot 9 will be mutilated and the package can then no longer be kept closed by the tongue 8. At this stage however the package will be so reduced in size that closure is not necessary.

20 It should be understood that although only three portions 3, 4 and 5 are shown in this embodiment, further portions may be employed and successively folded one upon another starting from the end remote from the tongue, the package being capable of closure by the tongue attached to the last portion entering the slot in the penultimate portion.

WHAT I CLAIM IS:—

40 1. A package for individual articles comprising a plurality of serially connected substantially flat panels defined by transverse fold lines along which the panels are foldable one upon the other to form a multi-ply structure with an end panel and an intermediate panel constituting the outer plies, each panel having side margins folded inwardly to cover partially individual articles extending crosswise of the panels releasably adhered to the inner face thereof, the aforementioned end panel being provided with a tongue and the intermediate panel with a slit for receiving the tongue when the package is folded to prevent the package from unfolding.

55 2. A package according to Claim 1 wherein the material of the sheet is such that it can be torn along the fold lines.

3. A package according to Claim 1 or 2

wherein the sheet material is any one of those hereinbefore specifically mentioned. 60

4. A package according to any of Claims 1—3, whenever the articles are adherent to the sheet by an adhesive.

5. A package according to any of Claims 1—3, wherein the articles are adhered to the sheet by heat sealing. 65

6. A package according to any of Claims 1 to 5, wherein the articles are strip form adhesive dressings.

7. A package according to any of Claims 1 to 5, wherein the articles are wrapped strip form adhesive dressings. 70

8. A package according to Claim 7 wherein the dressings are sterile.

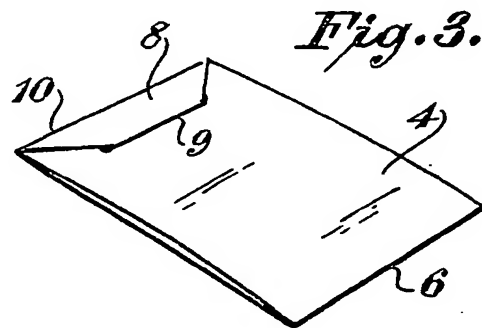
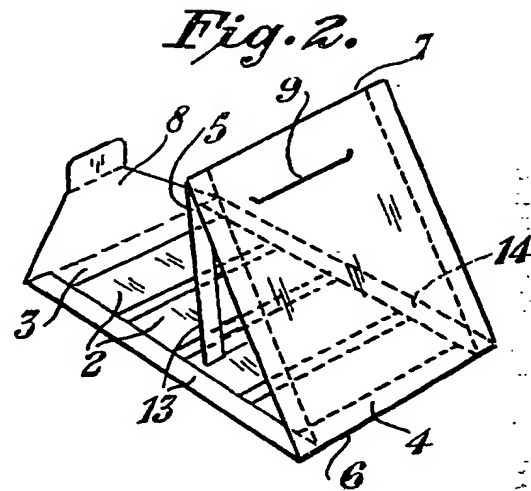
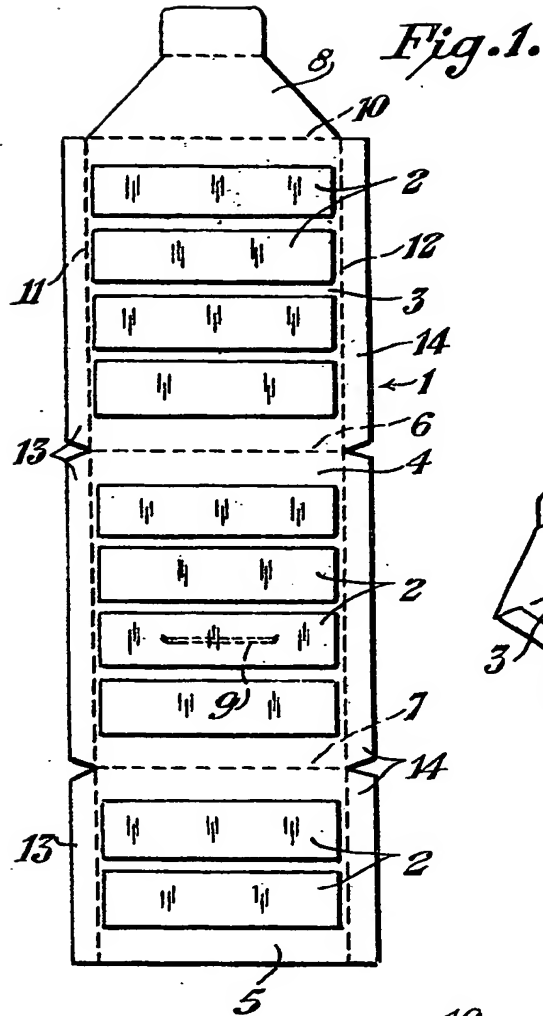
9. A package for surgical dressings constructed and arranged substantially as hereinbefore described and shown in the accompanying drawings. 75

10. A method of making a package of individual articles comprising forming a plurality of transverse spaced apart lines and two longitudinally extending marginal fold lines in a substantially rectangular sheet to define a plurality of portions of the sheet bounded by foldable margins, two portions being provided respectively with a tongue and a slit, adhering individual articles to the portions in spaced apart relationship longitudinally of the sheet, folding in the margins of the portions so as to overlie the surfaces thereof to which the articles are adhered, successively folding each portion over the next adjacent from one end of the sheet to enclose the articles within the multi-ply structure formed by the infolded portions and inserting the tongue provided on one of said portions at one end within the slit provided in another of said portions to prevent the package unfolding. 80 85 90 95

11. A method of making packages of individual articles in which a roll of sheet material is perforated, or cut, and impressed with fold lines to define a plurality of adjacent blanks separable therefrom, each said blank constituting a sheet for the manufacture of a package in accordance with Claim 9. 100 105

12. A method of making packages of individual strip-form adhesive dressings substantially as hereinbefore described. 110

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